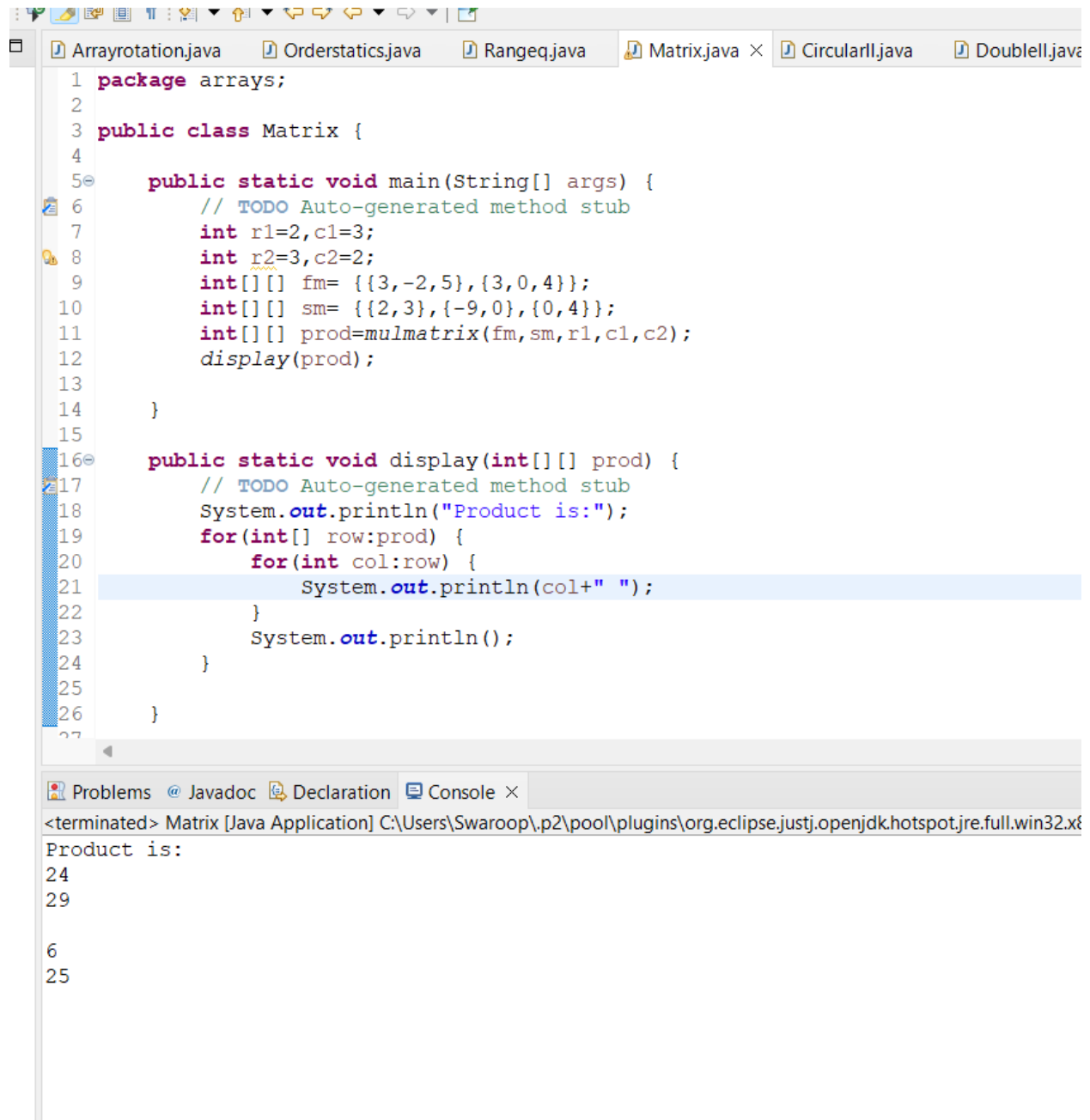


Problem Statement-4

```
package arrays;
public class Matrix {
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int r1=2,c1=3;
        int r2=3,c2=2;
        int[][] fm= {{3,-2,5},{3,0,4}};
        int[][] sm= {{2,3},{-9,0},{0,4}};
        int[][] prod=mulmatrix(fm,sm,r1,c1,c2);
        display(prod);
    }
    public static void display(int[][] prod) {
        // TODO Auto-generated method stub
        System.out.println("Product is:");
        for(int[] row:prod) {
            for(int col:row) {
                System.out.println(col+" ");
            }
            System.out.println();
        }
    }
    public static int[][] mulmatrix(int[][] fm, int[][] sm, int r1, int c1,
int c2) {
        // TODO Auto-generated method stub
        int [][] prod= new int[r1][c2];
        for(int i=0;i<r1;i++) {
            for(int j=0;j<c2;j++) {
                for(int k=0;k<c1;k++) {
                    prod[i][j]+=fm[i][k]*sm[k][j];
                }
            }
        }
        return prod;
    }
}
```



The screenshot shows the Eclipse IDE with a project named 'Matrix'. The 'Matrix.java' file is open, showing the following code:

```
1 package arrays;
2
3 public class Matrix {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7         int r1=2,c1=3;
8         int r2=3,c2=2;
9         int[][] fm= {{3,-2,5},{3,0,4}};
10        int[][] sm= {{2,3},{-9,0},{0,4}};
11        int[][] prod=mulmatrix(fm,sm,r1,c1,c2);
12        display(prod);
13    }
14
15    public static void display(int[][] prod) {
16        // TODO Auto-generated method stub
17        System.out.println("Product is:");
18        for(int[] row:prod) {
19            for(int col:row) {
20                System.out.println(col+" ");
21            }
22            System.out.println();
23        }
24    }
25 }
26
27
```

The console output shows the following text:

```
<terminated> Matrix [Java Application] C:\Users\Swaroop\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.jdk\bin\java.exe
Product is:
24
29
6
25
```